

Adrian C. Lo


Clinical Data Manager Data Analyst

 June 30, 1984 (Belgium)
 Bülach (ZH), Switzerland
 +41 78 653 92 08
 adrianclo1984@gmail.com
 github.com/adrianclo

About Me

I have a background in theoretical psychology and **statistics**. During my academic career, I studied and analyzed rodent behavior and molecular biology, but also gained expertise in developing **R programs**, **shiny apps** and **automated reports**. With these tools, I improved the speed and efficiency of data-processing for myself as well as colleagues.

Languages

 Dutch (native) ● ● ● ● ●
 English ● ● ● ● ●
 French ● ● ● ● ●
 Chinese (Cantonese) ● ● ● ● ●
 German ● ● ● ● ●

Computer Skills

R ● ● ● ● ●
R Markdown ● ● ● ● ●
Visualization (ggplot2) ● ● ● ● ●
Excel ● ● ● ● ●
Excel (macro/VBA) ● ● ● ● ●
Power BI ● ● ● ● ●
Tableau ● ● ● ● ●
Machine Learning ● ● ● ● ●
Git/Github ● ● ● ● ●
SQL ● ● ● ● ●
Python ● ● ● ● ●
R Shiny ● ● ● ● ●
HTML ● ● ● ● ●
L^AT_EX ● ● ● ● ●
SAS ● ● ● ● ●

Work Experience

2021 – present **Clinical Data Manager** MSD, Switzerland
- Review and curation of clinical trial data
- Supporting clinical trial teams with programming solutions
2016 – 2021 **Neuroscientist** Université de Lausanne, Switzerland
- Post-doctoral research on the role of RNA binding protein FXR2P in status epilepticus: Behavioral and molecular evaluation (Laboratory of Prof. Claudia Bagni)
- Reference person within the research group on issues related to statistics and programming
2014 – 2015 **Neuroscientist** KU Leuven, Belgium
Post-doctoral research on cue competition and contextual fear learning in rodents and humans. (Laboratory of Prof. Bram Vervliet)

Education

2008 – 2013 PhD in Behavioral Neuroscience KU Leuven, Belgium
2003 – 2008 MSc in Theoretical Psychology KU Leuven, Belgium

Certificates and Courses

02/2015 R programming John Hopkins Univ., Coursera
06/2018 Statistical Methods for Big Data in Life Sciences and SIB, Switzerland
09/2015 Health with R LSTAT, Belgium
12/2019 Introduction to SAS SIB, Switzerland
09/2018 Advanced R Shiny EPFL Extension School, Switzerland
04/2022 Introduction to Data Analysis with Python Datacamp
02/2021 Introduction to Power BI Datacamp
12/2020 Analyzing Data in Tableau IBM, Coursera
01/2019 Databases and SQL for Data Science SIB, Switzerland
10/2018 Data Management Plan EPFL, Switzerland
05/2015 Project Management KU Leuven, Belgium
05/2015 Text Mining with R

My R programs portfolio

meaR (public repository: click [here](#) to review it)

The text files from [Micro-Electrode Arrays](#) contain *in vitro* electrophysiological measurements interspersed with text. The numeric **data are extracted** from the text file and a master datafile is assembled. meaR then performs calculations for a variety of electrophysiological parameters and visualizes spike and burst activity for all 60 electrodes over time

phenotyper (private repository, available for discussion)

For the processing and analysis of [Phenotyper](#) data, we can use a cloud service upon payment. Through **reverse engineering**, I designed the phenotyper program that performs similarly to the cloud service and calculates additional behavioral parameters

easyGeno (private repository, available for discussion)

Mouse genotyping is a tedious process that requires several steps prior to the wet lab work: identification of the sample's model, pre-mix calculations, and planning of the assembly plates for PCR and electrophoresis. These can easily take up to half a day time. With easyGeno, an **automated report** is created with R Markdown that contains all these steps ready for the user to follow and optimized for the [QIAxcel apparatus](#). Finally, I developed a follow-up module that extracts the result from the QIAxcel pdf report and **cross-references with our database file** to automate band identification

unidamr (private repository, available for discussion)

A pipeline to process [Trikinetics](#) DAM behavioral data from *Drosophila*. **Longitudinal data** where behaviors are categorized as either sleep or awake state. Quantitative and qualitative sleep parameters are calculated

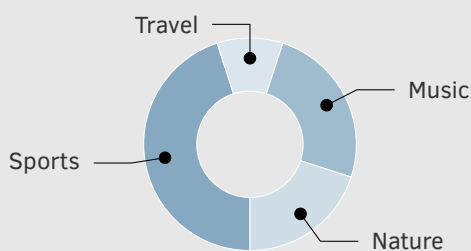
Adrian C. Lo


Clinical Data Manager
Data Analyst

Soft Skills



Extra-Curricular Activities



 Driver's license: B (2003)

Teaching Experience

- 2019-2020 **Coding Club** Université de Lausanne, Switzerland
Interactive course between PhD students and Postdocs on how to use R for data import, manipulation, visualization and analysis
- 2013 **Bachelor Course at KU Leuven** B-KUL-POM20B
How to use SPSS for basic data manipulation, statistics and SPSS output interpretation

Conferences and Presentations

- 2022 **SCDM Conference** Basel, Switzerland
- 2018 **NCCR-SYNAPSY Conference** Geneva, Switzerland
Cognitive flexibility in a mouse model for Fragile X Syndrome
- 2014 **RIKEN Brain Science Institute** Tokyo, Japan
Treatment with tauroursodeoxycholic acid modulates γ -secretase activity and rescues memory deficits in APP/PS1 mice, an AD mouse model
- 2012 **International Stockholm/Springfield symposium on advances in Alzheimer's disease** Stockholm, Sweden
Behavioural effects of selenium in mouse models of Alzheimer's disease
- 2010 **Forum of European Neurosciences** Amsterdam, The Netherlands
Reversible changes in neurocognitive performance and hippocampal synaptic plasticity in tau mutant mouse lines

Publications (6 most recent)

For the full list, [please click here](#)

- 2021 **BioRxiv**
Scopolamine blocks context-dependent reinstatement of fear responses in rats [\[doi\]](#)
Vercammen, LM, Lo AC, D'Hooge R, Vervliet B.
EMBO Reports
Absence of RNA binding protein FXR2P prevents prolonged phase of kainate-induced seizures [\[doi\]](#)
Lo AC, Rajan N, Gastaldo D, Telley T, Hilal ML, Buzzi A, Simonato M, Achsel T, Bagni C.
- 2019 **Nature Communications**
The autism- and schizophrenia-associated protein CYFIP1 regulates bilateral brain connectivity and behaviour [\[doi\]](#)
Domínguez-Iturza N, Lo AC, Shah D, Armendáriz M, Vannelli A, Mercaldo V, Trusel M, Li KW, Gastaldo D, Santos AR, Callaerts-Vegh Z, D'Hooge R, Mameli M, Van der Linden A, Smit AB, Achsel T, Bagni C.
- 2017 **Nature Communications**
The non-coding RNA BC1 regulates experience-dependent structural plasticity and learning [\[doi\]](#)
Briz V, Restivo L, Pasciuto E, Juczewski K, Mercaldo V, Lo AC, Baatzen P, Gounko NV, Borreca A, Girardi T, Luca R, Nys J, Poorthuis RB, Mansvelder HD, Fisone G, Ammassari-Teule M, Arckens L, Krieger P, Meredith R, Bagni C.
- 2014 **Neuropharmacology**
SSP-002392, a new 5-HT₄ receptor agonist, dose-dependently reverses scopolamine-induced learning and memory impairments in C57Bl/6 mice [\[doi\]](#)
Lo AC, De Maeyer JH, Vermaercke B, Callaerts-Vegh Z, Schuurkes JA, D'Hooge R.
- 2013 **Science**
Comment on "ApoE-directed therapeutics rapidly clear β -amyloid and reverse deficits in AD mouse models" [\[doi\]](#)
Tesseur I*, Lo AC*, Roberfroid A, Dietvorst S, Van Broeck B, Borgers M, Gijzen H, Moechars D, Mercken M, Kemp J, D'Hooge R, De Strooper B. * authors contributed equally